

**Aussenlaeufermotor**

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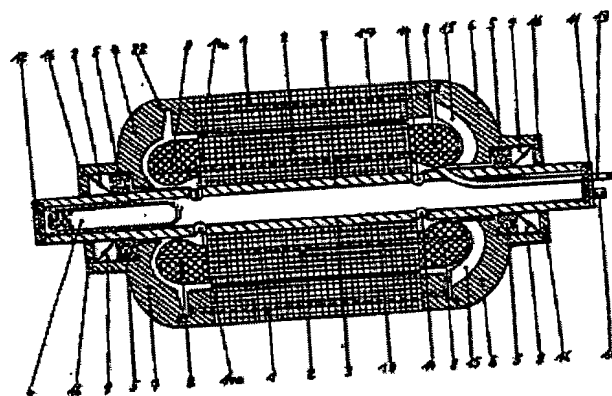
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**Abstract of DE3635297**

External rotor motors of enclosed design with direct cooling of the stator lamination bundle, stator winding and end windings, as well as of the rotor and housing, whereby, contrary to known external rotor motors, a liquid coolant is used. This results in a significant increase in efficiency compared with known external rotor motors and, because of the continual liquid overpressure inside the motor compared with the surrounding pressure, the motors described can be safely used almost without limitation in all areas of drive technology and in the hardest operating conditions. The bearing end-plates on the inside of the motor are adapted to the shape of the end windings of the stator winding, whereby at least one end-plate is provided with guide-blades. In this way a centrifugal pump is provided inside the hermetically-sealed motor which is fully filled with liquid, said pump serving to propel and circulate the liquid. The pump sucks up the liquid out of the stator cavity and drives it back again through the annular gap, between the rotor and stator, as well as over other cooling holes if necessary, on the opposite side of the pump into the stator cavity. Motors requiring a high degree of cooling are separated by a dividing plate, in the stator cavity, into an admission and delivery region and are connected to an external cooling system and/or to an external coolant pump.



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